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**REMARKS**

Claims 1-7, 9-11, 13, 14, 16-19, 21, 28, 30, 31, 35-36 and 39-41 are pending in the subject application with claims 1-7, 9-11, 13, 35 and 36 withdrawn by the Examiner. Applicants have herein amended claims 14, 28, 31, 35, 36 and have cancelled claims 1-7, 9-11, 13, 19, 21, 39-41 without disclaimer or prejudice to applicants' right to pursue the subject matter of this claim in the future. Support for the amendments to claim 14 may be found in the specification as originally filed at page 24, lines 11 to 18 and page 12, lines 18-20. Claim 28 has been amended merely to remove a comma. Support for the amendments to claim 31 may be found in the specification as originally filed at, *inter alia*, page 13, lines 27 to 29. Support for the amendments to claim 35 may be found in the specification as originally filed at, *inter alia*, page 14, lines 9 to 13. Support for the amendments to claim 36 may be found in the specification as originally filed at, *inter alia*, page 14, lines 15 to 18. Applicants respectfully request entry of this Amendment. After entry of this Amendment, claims 14, 16-18, 28, 30, 31, 35, and 36 will be pending.

**Restriction Requirement Under 35 U.S.C. §§121 and 372**

In the May 24, 2007 Office Action, the Examiner stated that restriction requirement imposed by the Examiner in the November 8, 2006 Office Action has been withdrawn. The

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Examiner asserted, however, that election of one of the following three groups is required under 35 U.S.C. §§121 and 372:

- I. claim(s) 1-7, 9-11 and 13, drawn to methods for determining whether a peptide forms a phosphorous-based ester with an organophosphorous agent;
- II. claim(s) 14, 16-19, 21, 28, 30, 31, and 39-41, drawn to peptides that form a phosphorous-based ester with an organophosphorous agent; and
- III. claim(s) 35 and 36, drawn to methods for treating exposure to or decontaminating an area exposed to an organophosphorous agent.

The Examiner stated that the inventions listed as Groups I-III do not relate to a single general inventive concept under PCT Rule 13.1 because they lack the same or corresponding special technical features. The Examiner asserted that peptides that form a phosphorous-based ester with organophosphorous agents and their use as scavengers of such agents are known in the prior art (LeJeune et al. Ann. N.Y. Acad. Sci. 864:153-170 (1998)). The Examiner asserted that LeJeune et al. teach an acetylcholinesterase which forms a phosphorous-based ester with the organophosphorous agent sarin, and that unity of invention is therefore lacking *a posteriori*.

The Examiner also indicated that in the response filed

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February 12, 2007 (actually filed February 8, 2007) applicants elected prior group II, and that therefore the examination has been conducted based on present group II because this encompasses prior group II (as well as prior groups III and IV). The Examiner further stated that claims 1-7, 9-11, 13, 35 and 36 are withdrawn.

#### Applicants' Response

In response, applicants elect, with traverse, Examiner's Group II, i.e. claims 14, 16-19, 21, 28, 30, 31, and 39-41 drawn to a peptide which forms a phosphorus-based ester with an organophosphorus agent. Applicants traverse the requirement for restriction.

Applicants note that, in accordance with 37 C.F.R. §1.475(a), Unity of Invention in a U.S. national stage of a PCT International Application is fulfilled when "there is a technical relationship among those inventions involving one or more of the same or corresponding special technical features. The expression 'special technical features' shall mean those technical features that define a contribution which each of the claimed inventions, considered as a whole, makes over the prior art."

With regard to the Examiners' assertion that the technical feature of the pending claims is shown in the prior art, applicants note that the claims of groups II and III as amended recite the common special technical feature of a peptide comprising at least six consecutive amino acids having the sequence set forth in any one of SEQ ID NOS:1-11. Applicants maintain that the prior art does not teach

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this common special technical feature, and thus the restriction requirement, at least with regard to current groups II and III should be withdrawn. Moreover, claims to "[a] product and a process of use of said product" satisfy the unity of the invention requirement Under 37 C.F.R. §1.475(b)(2). Therefore, applicants respectfully request that at least the claims of groups II and III be examined in this application.

**Claims Rejected Under 35 U.S.C. §112, First Paragraph (Written Description)**

The Examiner rejected claims 14, 16-19, 21, 28, 30, 31 and 39-41 under 35 U.S.C. §112 as containing subject matter allegedly not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors at the time the application was filed had possession of the claimed invention. The Examiner asserted, inter alia, that claims 14, 16-19, 21, 28, 30, 31 and 39-41 are drawn to peptides that form a phosphorous-based ester with an organophosphorous agent and that the claimed genus is much broader than the well-defined subgenus of SEQ ID NOs:1-11 disclosed in the specification.

In response, applicants respectfully traverse the Examiner's rejection. However, in order to expedite prosecution, and without conceding the correctness of the Examiner's position, applicants have herein amended claim 14, from which claims 16-19, 28 and 30 depend, and claim 31, such that the claims now recite structural and functional characteristics, i.e. the claimed peptide "forms a

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phosphorus-based ester with an organophosphorus agent, which peptide comprises at least six consecutive amino acids having a sequence set forth in any one of SEQ ID NOs:1-11." In addition, applicants have cancelled claims 21 and 39-41 without prejudice. Applicants maintain that a one of ordinary skill in the art would clearly recognize applicants' possession of the invention as claimed. Accordingly, applicants respectfully request that the Examiner reconsider and withdraw this ground of rejection.

**Claims Rejected Under 35 U.S.C. §102(b)**

**LeJeune et al.**

The Examiner rejected claims 14, 19, 28, 30, 31 and 39-41 as allegedly anticipated by LeJeune et al., Ann. N.Y. Acad. Sci. 864:153-170 (1998). The Examiner stated that LeJeune et al. teaches peptides that form a phosphorous-based ester with an organophosphorous agent.

In response, applicants respectfully traverse the Examiner's rejection. However, in order to expedite prosecution, and without conceding the correctness of the Examiner's position, applicants have hereinabove amended claim 14, from which claims 19, 28 and 30 depend, and claim 31, such that the claims now recite that the claimed peptide "forms a phosphorus-based ester with an organophosphorus agent, which peptide comprises at least six consecutive amino acids having a sequence set forth in any one of SEQ ID NOs:1-11." Applicants note that this peptide is not disclosed in LeJeune et al. In addition, applicants have cancelled claims 39-41 without prejudice. Accordingly,

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applicants respectfully request that the Examiner reconsider and withdraw this ground of rejection.

Stewart et al.

The Examiner rejected claims 14, 19, 28, and 39-41 as allegedly anticipated by Stewart et al., Science, 279:1534-1541 (1998). The Examiner stated that Stewart et al. teaches human topoisomerase I that forms a phosphorous-based ester with an organophosphorous agent.

In response, applicants respectfully traverse the Examiner's rejection. However, in order to expedite prosecution, and without conceding the correctness of the Examiner's position, applicants have hereinabove amended claim 14, from which claims 19, 28 and 30 depend, and claim 31, such that the claims now recite that the claimed peptide "forms a phosphorus-based ester with an organophosphorus agent, which peptide comprises at least six consecutive amino acids having a sequence set forth in any one of SEQ ID NOs:1-11." Applicants note that this peptide is not disclosed in Stewart et al. In addition, applicants have cancelled claims 39-41 without prejudice. Accordingly, applicants respectfully request that the Examiner reconsider and withdraw this ground of rejection.

Landry et al.

The Examiner rejected claims 14, 16-19, 39, and 40 as allegedly anticipated by Landry, U.S. Patent No. 5,948,658 (issued September 7, 1999). The Examiner stated that Landry teaches the peptides SDYAWT and SDYAWN.

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In response, applicants respectfully traverse the Examiner's rejection. However, in order to expedite prosecution, and without conceding the correctness of the Examiner's position, applicants have hereinabove amended claim 14, from which claims 16-19 depend, such that the claim now recites that the claimed peptide "forms a phosphorus-based ester with an organophosphorus agent, which peptide comprises at least six consecutive amino acids having a sequence set forth in any one of SEQ ID NOs:1-11." Applicants note that this peptide is not disclosed in Landry. In addition, applicants have cancelled claims 39 and 40 without prejudice. Accordingly, applicants respectfully request that the Examiner reconsider and withdraw this ground of rejection.

#### New England Biolabs

The Examiner rejected claims 14, 16, 18, 19, 21, 28, 31 and 39-41 as allegedly anticipated by the PhD-C7C Disulfide Constrained peptide Library Kit sold by New England Biolabs (product #8120, New England Biolabs Catalog, 1998/1999, pp140-141). The Examiner asserted, inter alia, that the library comprises randomized heptapeptide sequences flanked by a pair of cysteine residues capable of forming a phosphorous-based ester with an organophosphorous agent.

In response, applicants respectfully traverse the Examiner's rejection. However, in order to expedite prosecution, and without conceding the correctness of the Examiner's position, applicants have hereinabove amended claim 14, from

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which claims 16, 18, 19, and 28 depend, and claim 31, such that the claims now recite that the claimed peptide "forms a phosphorus-based ester with an organophosphorus agent, which peptide comprises at least six consecutive amino acids having a sequence set forth in any one of SEQ ID NOs:1-11." Applicants note that this peptide is not disclosed in the New England Biolabs 1998/1999 catalog. In addition, applicants have cancelled claims 21, and 39-41 without prejudice. Accordingly, applicants respectfully request that the Examiner reconsider and withdraw this ground of rejection.

Dower et al.

The Examiner rejected claims 14, 16-19, 21, 28, 31 and 39-41 as allegedly anticipated by Dower et al., U.S. Patent No. 5,432,018 (issued June 11, 1995). The Examiner asserted that Dower et al. teaches a hexapeptide library comprising all possible randomized hexapeptide sequences.

In response, applicants respectfully traverse the Examiner's rejection. However, in order to expedite prosecution, and without conceding the correctness of the Examiner's position, applicants have hereinabove amended claim 14, from which claims 16-19, and 28 depend, and claim 31, such that the claims now recite that the claimed peptide "forms a phosphorus-based ester with an organophosphorus agent, which peptide comprises at least six consecutive amino acids having a sequence set forth in any one of SEQ ID NOs:1-11." Applicants note that this peptide is not disclosed in Dower et al. In addition, applicants have



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cancelled claims 21, and 39-41 without prejudice. Accordingly, applicants respectfully request that the Examiner reconsider and withdraw this ground of rejection.

Claims 19 and 40

The Examiner stated that, regarding claims 19 and 40, neither Stewart et al., Landry, New England Biolabs catalog or Dower et al. teach that the respective peptides from a phosphorous-based ester with an insecticide or chemical warfare agent. The Examiner further stated that "because the chemical structure of the species taught by Stewart et al., Landry, New England Biolabs catalog and Dower et al. are identical to the claimed invention there is a reasonable expectation that the species would meet this additional functional limitation."

In response, applicants respectfully traverse the Examiner's rejection. However, in order to expedite prosecution, and without conceding the correctness of the Examiner's position, applicants have hereinabove amended claim 14, from which rejected claim 19 depends, to recite that the claimed peptide "forms a phosphorus-based ester with an organophosphorus agent, which peptide comprises at least six consecutive amino acids having a sequence set forth in any one of SEQ ID NOS:1-11." Applicants note that this peptide is not disclosed in the cited references, and so the "species taught by Stewart et al., Landry, New England Biolabs catalog and Dower et al." are not identical to the claimed invention. In addition, applicants have cancelled claim 40 without prejudice. Accordingly, applicants

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respectfully request that the Examiner reconsider and withdraw this ground of rejection.

**Claims Rejected Under Obviousness-Type Double Patenting**

U.S. Patent No. 6,913,917

The Examiner rejected claims 14, 19, 28 and 39-41 on the ground of non-statutory obviousness-type double patenting over claims 1-3 of U.S. Patent No. 6,913,917. The Examiner asserted that although the allegedly conflicting claims are not identical they are not patentably distinct from each other because claims 14, 19, 28 and 39-41 are generic to all that is recited in claims 1-3 of U.S. Patent No. 6,913,917 which recite a humanized catalytic antibody comprising the light chain sequence RSSXGTITXXNYAN.

In response, applicants respectfully traverse the Examiner's rejection. However, in order to expedite prosecution, and without conceding the correctness of the Examiner's position, applicants have hereinabove amended claim 14, from which claims 16-19, and 28 depend such that the claims now recite that the claimed peptide "forms a phosphorus-based ester with an organophosphorus agent, which peptide comprises at least six consecutive amino acids having the sequence set forth in any one of SEQ ID NOs:1-11." As such, applicants note that the claims as amended are not generic to claims 1-3 of U.S. Patent No. 6,913,917. In addition, applicants have cancelled claims 39-41 without prejudice. Accordingly, applicants respectfully request that the Examiner reconsider and withdraw this ground of rejection.

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U.S. Patent No. 5,948,658

The Examiner rejected claims 14, 19, 28 and 39-41 on the ground of non-statutory obviousness-type double patenting over claims 1-14 of U.S. Patent No. 5,948,658. The Examiner asserted that although the allegedly conflicting claims are not identical they are not patentably distinct from each other because claims 14, 19, 28 and 39-41 are generic to all that is recited in claims 1-14 of U.S. Patent No. 5,948,658, claims 1-12 of which recite a catalytic antibody comprising the light chain sequence RSSXGTITXXNYAN and claims 13 and 14 of which recite a catalytic antibody comprising the light chain sequence KSSQSLLYSDGKTYLN.

In response, applicants respectfully traverse the Examiner's rejection. However, in order to expedite prosecution, and without conceding the correctness of the Examiner's position, applicants have hereinabove amended claim 14, from which claims 19 and 28 depend, such that the claims now recite that the claimed peptide "forms a phosphorus-based ester with an organophosphorus agent, which peptide comprises at least six consecutive amino acids having the sequence set forth in any one of SEQ ID NOs:1-11." As such, applicants note that the claims as amended are not generic to claims 1-14 of U.S. Patent No. 5,948,658. In addition, applicants have cancelled claims 39-41 without prejudice. Accordingly, applicants respectfully request that the Examiner reconsider and withdraw this ground of rejection.

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U.S. Patent No. 6,280,987

The Examiner rejected claims 14, 19, 28 and 39-41 on the ground of non-statutory obviousness-type double patenting over claims 1-23 of U.S. Patent No. 6,280,987. The Examiner asserted that although the allegedly conflicting claims are not identical they are not patentably distinct from each other because claims 14, 19, 28 and 39-41 are generic to all that is recited in claims 1-23 of U.S. Patent No. 6,280,987, claims 1-7 and 21 of which recite a catalytic antibody comprising the light chain sequence RSSXGTITXXNYAN, claims 8,9 and 22 of which recite a catalytic antibody comprising the light chain sequence KSSQSLLYSDGKTYLN, claims 10 and 13-18 of which recite a catalytic antibody comprising the light chain sequence RSSRSLLYRDGKTYLN, and claims 19, 20 and 23 of which recite a catalytic antibody comprising the light chain sequence KSSQSLLYSDGKTYLN.

In response, applicants respectfully traverse the Examiner's rejection. However, in order to expedite prosecution, and without conceding the correctness of the Examiner's position, applicants have hereinabove amended claim 14, from which claims 19 and 28 depend, such that the claims now recite that the claimed peptide "forms a phosphorus-based ester with an organophosphorus agent, which peptide comprises at least six consecutive amino acids having the sequence set forth in any one of SEQ ID NOs:1-11." As such, applicants note that the claims as amended are not generic to claims 1-23 of U.S. Patent No. 6,280,987. In addition, applicants have cancelled claims 39-41 without prejudice.

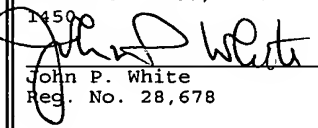
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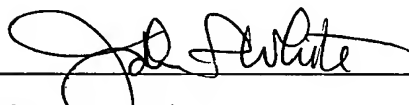
Accordingly, applicants respectfully request that the Examiner reconsider and withdraw this ground of rejection.

If a telephone interview would be of assistance in advancing prosecution of the subject application, applicants' undersigned attorney invites the Examiner to telephone them at the number provided below.

No fee is deemed necessary in connection with the filing of this Amendment. However, if any fee is required, authorization is hereby given to charge the amount of such fee to Deposit Account No. 03-3125.

Respectfully submitted,

I hereby certify that this correspondence is being deposited this date with the U.S. Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450	
 John P. White Reg. No. 28,678	<u>8/21/07</u> Date

  
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